

Release notes for ENDF/B Development n-096\_Cm\_250  
evaluation



April 26, 2017

- **fizcon** Warnings:

1. It is OK for uncertainty to be bigger than value  
*MAT=9655, MF= 1, MT=458 (1): Big unc*

```
ERROR(S) FOUND IN MAT=9655, MF= 1, MT=458
    ERROR GREATER THAN VALUE AT COMPONENT # 41      SEQUENCE NUMBER     11
    ERROR GREATER THAN VALUE AT COMPONENT # 51      SEQUENCE NUMBER     11
    ERROR GREATER THAN VALUE AT COMPONENT # 53      SEQUENCE NUMBER     11
```

- **psyche** Warnings:

1. Strength function in URR not in agreement with PSYCHE's expectations  
*FILE 2 / SECTION 151 / ISOTOPE MASS = 250. L = 0 / STRENGTH FUNCTION IS 3.45882E-04 / STRENGTH FUNCTION 3.45882E-04 / LIES OUTSIDE LIMITS 4.00000E-05 TO 2.00000E-04 (0): URR str. ftn.*

```
FILE 2
SECTION 151
ISOTOPE MASS = 250. L = 0
STRENGTH FUNCTION IS 3.45882E-04
STRENGTH FUNCTION 3.45882E-04
... [1 more lines]
```

- **fudge-4.0** Warnings:

1. Missing a channel with a particular angular momenta combination  
*resonances / resolved / MultiLevel\_BreitWigner (Error # 0): missingResonanceChannel*

```
WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"
```

2. Potential scattering hasn't converted, you need more L's!  
*resonances / resolved (Error # 1): potentialScatteringNotConverged*

```
WARNING: Potential scattering hasn't converged by L=0 at E=150.0 eV, xs[0]/xs[0]=100.0% > 0.1%
```

3. Cross section does not match sum of linked reaction cross sections  
*crossSectionSum label 0: total (Error # 0): CS Sum.*

```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.79%
```

4. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 1 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [nubar]): / Form 'eval': (Error # 0): Condition num.*

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

5. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 3 (total): / Form 'eval': / Component 0 (Error # 0): Condition num.*

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

6. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 3 (total): / Form 'eval': / Component 1 (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

7. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 4 (n + Cm250): / Form 'eval': / Component 0 (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

8. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 4 (n + Cm250): / Form 'eval': / Component 1 (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

9. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 8 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission]): / Form 'eval': / Component 0 (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

10. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 8 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission]): / Form 'eval': / Component 1 (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

11. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 10 (n + (Cm250\_e1 -> Cm250 + gamma)): / Form 'eval': (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (6.696976e-11) is too small

12. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 13 (n + (Cm250\_e4 -> Cm250 + gamma)): / Form 'eval': (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (2.893933e-09) is too small

13. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

*Section 14 (n + (Cm250\_e5 -> Cm250 + gamma)): / Form 'eval': (Error # 0): Condition num.*

WARNING: Ratio of smallest/largest eigenvalue (2.139313e-09) is too small

14. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 15 (n + (Cm250\_c -> Cm250 + gamma)): / Form 'eval': (Error # 0): Condition num.*

**WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small**

15. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 16 (Cm251 + gamma): / Form 'eval': / Component 0 (Error # 0): Condition num.*

**WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small**

16. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 16 (Cm251 + gamma): / Form 'eval': / Component 1 (Error # 0): Condition num.*

**WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small**

17. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 17 (n + Cm250 [angular distribution]): / Form 'eval': (Error # 1): Condition num.*

**WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small**

18. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 18 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.*

**WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small**

19. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 19 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.*

**WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small**

20. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 20 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.*

**WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small**

21. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 21 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.*

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

- fudge-4.0 Errors:

1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

*Reading ENDF file: ..n-096\_Cm\_250.endf (Error # 0): No delayed n dist*

```
WARNING: More than one delayed fission neutron decay time but no MF = 5 data
```

2. Energy range of data set does not match cross section range  
*reaction label 6: n + (Cm250\_c ->Cm250 + gamma) / Product: Cm250\_c / Decay product: gamma\_a / Multiplicity: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (144179.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

3. Energy range of data set does not match cross section range  
*reaction label 6: n + (Cm250\_c ->Cm250 + gamma) / Product: Cm250\_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (144179.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

```
WARNING: Domain doesn't match the cross section domain: (299302.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

```
WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

```
WARNING: Domain doesn't match the cross section domain: (700000.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

... plus 1 more instances of this message

4. Energy range of data set does not match cross section range  
*reaction label 6: n + (Cm250\_c ->Cm250 + gamma) / Product: Cm250\_c / Decay product: gamma\_b / Multiplicity: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (299302.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

5. Energy range of data set does not match cross section range  
*reaction label 6: n + (Cm250\_c ->Cm250 + gamma) / Product: Cm250\_c / Decay product: gamma\_c / Multiplicity: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

6. Energy range of data set does not match cross section range  
*reaction label 6: n + (Cm250\_c ->Cm250 + gamma) / Product: Cm250\_c / Decay product: gamma\_d / Multiplicity: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (700000.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

7. Energy range of data set does not match cross section range  
*reaction label 6: n + (Cm250\_c ->Cm250 + gamma) / Product: Cm250\_c / Decay product: gamma\_e / Multiplicity: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (900000.0 -> 20000000.0) vs (115000.0 -> 20000000.0)
```

8. Calculated and tabulated Q values disagree.  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma (Error # 0): Q mismatch*

```
WARNING: Calculated and tabulated Q-values disagree: -5892416.46585083 eV vs -5832430. eV!
```

9. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_a / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

10. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

11. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_b / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

12. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

13. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_c / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

14. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

15. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_d / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

16. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

17. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_e / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

18. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

19. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_f / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

20. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

21. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_g / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

22. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

23. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_h / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

24. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

25. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_i / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

26. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

27. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_j / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

28. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

29. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_k / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

30. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

31. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_l / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

32. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

33. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_m / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

34. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_m / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

35. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_n / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

36. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
37. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_o / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
38. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_o / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
39. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_p / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
40. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_p / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
41. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_q / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
42. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_q / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
43. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_r / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)
44. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_r / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

45. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_s / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

46. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_s / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

47. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_t / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

48. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_t / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

49. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_u / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

50. Energy range of data set does not match cross section range  
*reaction label 7: n[multiplicity:'2'] + Cm249 + gamma / Product: gamma\_u / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5855950.0 -> 20000000.0)

51. Calculated and tabulated Q values disagree.  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma (Error # 0): Q mismatch*

**WARNING:** Calculated and tabulated Q-values disagree: -10605786.34786987 eV vs -1.05458e7 eV!

52. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_a / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

53. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

54. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_b / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

55. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

56. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_c / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (11500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

57. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (11500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

58. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_d / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

59. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

60. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_e / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

61. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

62. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_f / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

63. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

64. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_g / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

65. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

66. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_h / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (11500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

67. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (11500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

68. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_i / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

69. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

70. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_j / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

71. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

72. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_k / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (11500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

73. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (11500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

74. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_l / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12000000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

75. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12000000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

76. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_m / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12000000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

77. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_m / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12000000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

78. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_n / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

79. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

80. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_o / Multiplicity: (Error # 0): Domain mismatch (a)*

**WARNING:** Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

81. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_o / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

82. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_p / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

83. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_p / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

84. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_q / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

85. Energy range of data set does not match cross section range  
*reaction label 8: n[multiplicity:'3'] + Cm248 + gamma / Product: gamma\_q / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (12500000.0 -> 20000000.0) vs (10588300.0 -> 20000000.0)

86. Calculated and tabulated Q values disagree.  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -16818802.96142578 eV vs -1.67588e7 eV!

87. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_a / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

88. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

89. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_b / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

90. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

91. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_c / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

92. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

93. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_d / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

94. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

95. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_e / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

96. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

97. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_f / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

98. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

99. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_g / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

100. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

101. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_h / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

102. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

103. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_i / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

104. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

105. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_j / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

106. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

107. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_k / Multiplicity: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

108. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
109. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_l / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
110. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
111. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_m / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
112. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_m / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
113. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_n / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
114. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
115. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_o / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
116. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_o / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

117. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_p / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
118. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_p / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
119. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_q / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
120. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_q / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
121. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_r / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
122. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_r / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
123. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_s / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
124. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_s / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
125. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_t / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

126. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_t / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
127. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_u / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
128. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_u / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
129. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_v / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
130. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_v / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
131. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_w / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
132. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_w / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
133. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_x / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
134. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_x / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

135. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_y / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
136. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_y / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
137. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_z / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
138. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_z / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
139. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_aa / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
140. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_aa / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
141. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ab / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
142. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ab / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
143. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ac / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

144. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ac / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
145. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ad / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
146. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ad / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
147. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ae / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
148. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ae / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
149. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_af / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
150. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_af / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
151. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ag / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
152. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ag / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

153. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ah / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
154. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ah / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
155. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ai / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
156. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ai / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
157. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_aj / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
158. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_aj / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
159. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ak / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
160. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ak / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
161. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_al / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

162. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_al / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
163. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_am / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
164. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_am / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
165. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_an / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
166. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_an / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
167. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ao / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
168. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ao / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
169. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ap / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
170. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ap / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)

171. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_aq / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
172. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_aq / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18500000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
173. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ar / Multiplicity: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
174. Energy range of data set does not match cross section range  
*reaction label 9: n[multiplicity:'4'] + Cm247 + gamma / Product: gamma\_ar / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*
- WARNING: Domain doesn't match the cross section domain: (18000000.0 -> 20000000.0) vs (16826400.0 -> 20000000.0)
175. Calculated and tabulated Q values disagree.  
*reaction label 11: Cm251 + gamma (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 4352750.734710693 eV vs 4412740. eV!
176. Multiplicity does not match sum of linked product multiplicities!  
*multiplicitySum label 8: n + (Cm250\_c ->Cm250 + gamma) total gamma multiplicity (Error # 0): summedMultiplicityMismatch*
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 38.18%
177. Multiplicity does not match sum of linked product multiplicities!  
*multiplicitySum label 9: n[multiplicity:'2'] + Cm249 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch*
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 98.66%
178. Multiplicity does not match sum of linked product multiplicities!  
*multiplicitySum label 10: n[multiplicity:'3'] + Cm248 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch*
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 99.98%
179. Multiplicity does not match sum of linked product multiplicities!  
*multiplicitySum label 11: n[multiplicity:'4'] + Cm247 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch*
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 100.00%

180. Calculated and tabulated Q values disagree.  
*fissionComponent label 0: /reactionSuite/fissionComponents/fissionComponent[@label='0']*  
*(Error # 0): Q mismatch*
- ```
WARNING: Calculated and tabulated Q-values disagree: 233886006164.414 eV vs 2.098093e8 eV!
```
181. Calculated and tabulated Q values disagree.  
*fissionComponent label 1: /reactionSuite/fissionComponents/fissionComponent[@label='1']*  
*(Error # 0): Q mismatch*
- ```
WARNING: Calculated and tabulated Q-values disagree: 233886006164.414 eV vs 2.098093e8 eV!
```
182. Calculated and tabulated Q values disagree.  
*fissionComponent label 2: /reactionSuite/fissionComponents/fissionComponent[@label='2']*  
*(Error # 0): Q mismatch*
- ```
WARNING: Calculated and tabulated Q-values disagree: 233886006164.414 eV vs 2.098093e8 eV!
```
183. Calculated and tabulated Q values disagree.  
*fissionComponent label 3: /reactionSuite/fissionComponents/fissionComponent[@label='3']*  
*(Error # 0): Q mismatch*
- ```
WARNING: Calculated and tabulated Q-values disagree: 233886006164.414 eV vs 2.098093e8 eV!
```
184. A covariance matrix was not positive semi-definite, so it has negative eigenvalues.  
*Section 17 (n + Cm250 [angular distribution]): / Form 'eval': / LegendreLValue L=1*  
*vs 1 (Error # 0): Bad evs*

```
WARNING: 9 negative eigenvalues! Worst case = -1.305479e-04
```

- **njoy2012 Warnings:**

1. In some evaluations, the partial fission reactions MT=19, 20, 21, and 38 are given in File 3, but no corresponding distributions are given. In these cases, it is assumed that MT=18 should be used for the fission neutron distributions.  
*heatr...prompt kerma (0): HEATR/hinit (3)*

```
---message from hinit---mt19 has no spectrum
mt18 spectrum will be used.
```

2. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (1): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 16 does not give recoil za= 96249
one-particle recoil approx. used.
```

3. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (2): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 17 does not give recoil za= 96248
one-particle recoil approx. used.
```

4. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (3): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 37 does not give recoil za= 96247
one-particle recoil approx. used.
```

5. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (4): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 51 does not give recoil za= 96250
one-particle recoil approx. used.
```

6. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (5): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 52 does not give recoil za= 96250
one-particle recoil approx. used.
```

7. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (6): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 53 does not give recoil za= 96250
one-particle recoil approx. used.
```

8. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (7): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 54 does not give recoil za= 96250
one-particle recoil approx. used.
```

9. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (8): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 55 does not give recoil za= 96250
one-particle recoil approx. used.
```

10. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (9): HEATR/hinit (4)*

```
---message from hinit---mf6, mt 91 does not give recoil za= 96250
one-particle recoil approx. used.
```

11. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (10): HEATR/hinit (4)*

```
---message from hinit---mf6, mt102 does not give recoil za= 96251
photon momentum recoil used.
```

12. There is a problem with the fission energy release.  
*heatr...prompt kerma (17): HEATR/nheat (3)*

```
---message from nheat---changed q from 2.098093E+08 to 1.973724E+08
for mt 18
```

- **xsectplotter Errors:**

1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.  
*(Error # 2): No delayed n dist*

```
WARNING: More than one delayed fission neutron decay time but no MF = 5 data
```